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ABSTRACT

This booklet presents questions and answers on everything from how to find out what technology students will need for college to ideas for handling technology emergencies when they are there at college. Information and selected resources are provided under the following questions that head each section: "How do I find out what technology I should take to college?"; "Is my machine up to date enough? What are some recommended specs?"; "Should I buy a laptop or a desktop computer? What about a PDA or handheld?"; "Should I buy my technology from my college or university? Should I buy it before arriving on campus?"; "What about security?"; "What software will I need for college?"; "What should I know about Email?"; "What should I know how to do on my computer BEFORE my courses begin?"; "Where can I find help when I'm having trouble with my computer?"; " What should I do if my computer or printer is not working as an assignment is due?" Troubleshooting tips, a technology packing checklist, and a form for filling in necessary names and numbers are provided at the end of the booklet. (AEF)

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Wish I'd Known That

Tips on Taking Technology to College

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Diane S. Kendall and Dr. Merle Marsh

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Universal Truths of College Computing

- ✔ No matter what technology you buy today, there's sure to be something faster, lighter, or 'cooler'. . . tomorrow.
- ✔ No matter which way you go—laptop or desktop—there will be times when you wish you had the other. Enjoy the advantage of whatever your choose.
- ✔ You can buy the best computer in the world, but if you don't explore how to use it, it might as well be a television sitting on your desk.
- ✔ If you download all those freebies from the Internet, don't ask why you're having troubles with your computer.
- ✔ Think "garbage in, garbage out, virus in, computer out" when you're downloading all those MP3 and other files you don't really need.
- ✔ Grammar checkers aren't always grammatically correct. Stay awake while you're running a spell check as well.
- ✔ When searching the Internet, the fewer the hits the better—Unless it's zero.
- ✔ Good online researchers use their computers, not paper.
- ✔ If you don't back up, disaster is imminent—probably at 1 A.M. the day a paper is due.
- ✔ If you wait until the last minute to do your assignment, your computer system may become as frustrated as you are.
- ✔ Headphones have salvaged or saved many a roommate relationship.
- ✔ Watch out for your 'friendly' neighborhood computer whiz down the hall who's dying to fix, upgrade, or add everything possible to your system. Once you give your computer over, you may never be able to find anything or even use your computer again.
- ✔ Unplug your keyboard and hide your passwords if you're even thinking of letting the party into your room.
- ✔ When you yawn, stretch, get up for a drink or use the bathroom, answer the phone, hear a loud noise outside your room, or greet your roommate when he or she comes in—these are all moments when you should SAVE your work on the computer. Doing so may one day save your grade.
- ✔ Word Processing Pros know that (1) Attractive papers attract higher grades. (2) Less is often more–that goes for fonts, color, and formatting. (3) Using fonts with names like Cowgirl or Comic or even French Script is a no-no. (4) You've only begun editing when you run your spelling checker. (5) Guess what? Lengthening papers by adjusting margins is an old trick going back to the dark days of typewriters. It still doesn't increase content. (6) Not having an extra printer cartridge on hand . . . well, you can guess what that means.
- ✔ Getting technology help is easy—if you know where to look. Somebody has the answer to your question.
- ✔ No need to worry. No one is ever completely up-to-date in the computer world.

How Technology Can Help You Get Better Grades

- If you thought your high school teachers were fussy about how a paper should look, "you ain't seen nothing yet." Every college has at least one professor who's a notorious stickler for some kind of details. Our best advice—always read the instructions BEFORE beginning any part of a paper, WHILE working on it, and AFTER you print out or prepare to send the final draft. Sometimes, at the last minute, you'll find something you hadn't noticed before that may make a huge difference in your grade. It may be content that needs to be included, a more acceptable font and font size, information for the bibliography, how the professor wants you to submit the work, or so on. Making last minute changes should be easy, thanks to your computer.

- Follow the instructions given in the style guide (APA, MLA, etc.) required by your professor.

- Use black ink, a standard-sized font (usually size 12), and standard margins (about 0.9 inches at the top and bottom and 1.25 inches on the left and right)

- Use fonts that are considered standard in printing, such as Times, Arial, Times New Roman, or Palatino. Avoid script-type and whimsical fonts. Don't vary the fonts except as we suggest in the next paragraph.

- Unless instructed otherwise by your professors, use a sans serif font for titles and subheadings (a sans serif font is one that doesn't have little lines finishing all the letters, such as in the font Arial or Helvetica). Use a serif font for the main text. (Serif fonts, such as Times, Garamond, or Palatino, have little lines finishing off the letters.) Why follow this advice? Sans serif fonts can be read easily at a distance but are more difficult to read up close, forcing the reader (your professor) to work harder when reading your words. Serif fonts (which are used for the main text in almost all written forms and publications) are easier to read up close but are more difficult to discern from a distance.

- Don't use underline for anything; it interferes with the readability of the text and is a throwback from the days of typewriters. Instead, use **bold**, *italic*, shading, color, and boxes, to add emphasis. Of course, if your professor loves underlining, then by all means, underline.

- If appropriate, add a few illustrations. Most people are visual learners–including professors.

- College professors don't like papers printed in red or green or . . . In a pinch, select a brown, burgundy or navy color and see if you can squeak by with your own version of 'off-black.'

- An attractive paper has a better chance of getting a good grade than one that's obviously thrown together.

- Take advantage of the opportunity to email your paper to your professor—It may give you that little extra breathing room you need to get it in on time.

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First edition

The authors would like to thank the staff and recent alumni of the Worcester Preparatory School in Berlin, Maryland, and The Kinkaid School in Houston, Texas, for their on-target tips on taking technology to college. In particular, we'd like to thank Kay Medlen at Kinkaid for her faith in the project and help lining up alums for our online survey. We're also especially grateful to Professor James G. Lengel of the College of Communication at Boston University for his astute observations on every phase of this project and for creating the online version of our survey. Dr. Tim Murphy of the University of St. Thomas in Houston, Texas, deserves kudos for his straightforward advice to us and to those facing their first year wrestling with technology on their own. Kenneth Stark, who posed for the cover, and Betsy Haas, who took the picture, are also gratefully commended for keeping the faith on a steamy June day in Houston. Special thanks go to Dr. Buck Miller of Christopher Newport University, Dave Smallen of Hamilton College, Rich Folger at the College of Communication, Boston University, and the numerous other people we spoke with at colleges around the country. Adam Marsh, in particular, deserves credit for the warning against SPYware on your computer, as well as for being his Mom's techno-man on the spot. CJ Kendall, headed for her first year at Cornell, was the inspiration for this whole project. And last, but not least, a thanks to Charles Roebuck, our patient sidekick and budding layout whiz!

Deciding what technology to bring to college is not that different from choosing what clothes to take. Should you just bring the clothes you already own? How trendy do you need to be? Should you try out some new styles before leaving home, or just wait and see what everyone else has after you arrive on campus?

Making decisions about what technology to take to college involves answering similar questions. To some extent, you need to follow technology trends. But because technology is expensive, you'll want to make informed choices that you can live with for a while. Some of your technology choices may need to be identical with those of everyone else has on campus. More likely, however, you'll be making many personal decisions about what technology is best suited for you and your needs.

Those individual decisions are what this booklet is all about. We took a survey of current college students and asked them about their technology experiences on campus. We talked to computer support people and professors on campuses to find out what they thought incoming freshmen should know, and we canvassed some parents about their students' college technology experiences as well. You'll find some of their responses throughout this book. Finally, we also looked at a wide range of college web sites to see what advice they had to offer.

The result is a Q. and A. on everything from how to find out what technology you'll need for college to ideas for handling technology emergencies when you're there. One comforting thing we discovered is that colleges are very aware of their need to provide technology support for students. Even so, it never hurts to know the right questions to ask when you need that kind of support. Take a look at what we've discovered. A year from now, we'd love to hear your ideas on what you think incoming freshmen should know about taking technology to college.

How Do I Find Out What Technology I Should Take to College?

Obviously, the number one source for finding out about the kind of technology you'll need for school is your college or university. That said, it never hurts to have a second opinion, so listen to what others you trust have to say as well. Here are some ideas for how to find the advice you need:

Find out what your school recommends

- ☑ Look over the mailings from your school that you received in the spring and summer. Undoubtedly, there will be information about what kind of technology is supported on campus. Look for details, such as what platforms are supported, recommended hardware specifications, and specifics on what you'll need to plug into the college network. Some colleges require that every student have the same type of computer, while others support multiple platforms (Macintosh and Windows) and operating systems (such as Windows '98, ME, or XP or Mac OS 9 or X).

- ☑ If your college has a summer orientation program, take that opportunity to ask questions about computing. Look around the campus while you're there and see what kinds of computers are available.

- ☑ Go to the your school's web site and look for links related to computing and freshmen. These often appear under such headings as **Student Computing** or **Computing at (the name of your college)**. If you don't find such a link at once, keep trying. You may have to do a search on the site using a keyword such as "computing."

- ☑ Be sure to check out the college book store or college computer store. Sometimes, these places are the center of computing on campus. See if they offer any special deals, but be careful to comparison shop to make sure that what they're offering is really a bargain.

- ☑ Do you have a special need or question? Try contacting the Technology Support Center on campus. There are usually people there who specialize in providing personal computing support on campus. Other common names for such a support center might be: Personal Computer Support Center, Academic Computing Office, or Information Technology Office.

- ☑ Talk with a faculty member in a department in which you're interested. Different departments at a college may have specific computer requirements. At Villanova, for example, business majors are required to purchase the school-recommended computers, while non-business majors have no such requirement. Many academic departments or course requirements recommend specific software as well. Make sure that the recommended software will work on your computer system or the one you're thinking of getting. Be aware that some faculty may have designed their own software. If so, don't panic. If it doesn't work on your system, you can use it on machines in the campus computer labs.

Check with students who attend that college or university

- ☑ Find out what types of technology other students have bought or are using on campus. Be sure to ask what they might have done differently in purchasing technology now that they've been on campus for a while. What do they like about their particular computer systems and software?

- ☑ Where do they get support on campus when they have a personal computing question or problem?

"Unless you have specific requirements, you don't need the absolutely highest level of current technology. On the other hand, saving a few dollars by buying low on the technology curve is a false economy."

"Remember that the most expensive computer may not be the best."

Universal Truths ✔

No matter how good a machine you buy, something better will be available within a very short time.

Just because something better will soon be available, don't let that keep you from making a technology purchase now.

You can buy the best computer in the world, but if you don't explore how to use it, it might as well be a television sitting on your desk.

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Other Considerations

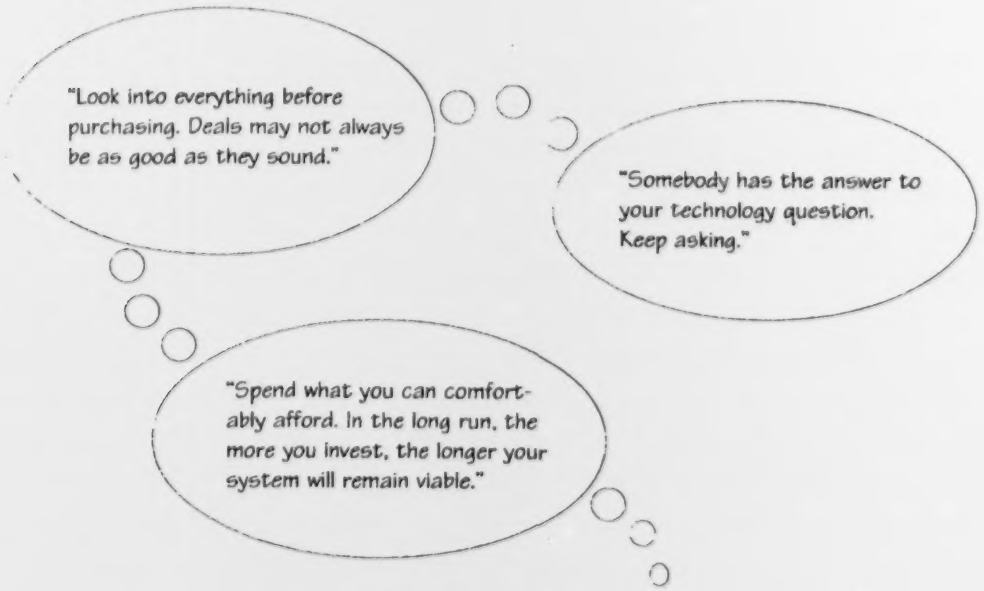
- ☑ Consider the academic discipline that you'll be entering. Some disciplines—advertising, television, public relations, education, and graphic design—are often dominated by Macintosh users. These types of work, especially those involving lots of graphics, require more than average computing power. Although processor speed is important, "throughput" is a major consideration. "Throughput" means a faster hard drive, such as a SCSI drive or a RAID array, a video card, and more Firewire ports.

- ☑ Finance, Statistics, Mathematics, and Business majors are number crunchers who often use IBM PCs, also called "Wintel" machines (from Windows and Intel). Although they have some graphical elements, processor speed is a key element.

- ☑ Architecture, engineering, and design/development students use major computing workstations. You may not want to purchase (or be able to afford) a computer that can meet the required standards. In that case, find out what computers are supplied by the school and then buy something less expensive for day-to-day work needs.

- ☑ Some colleges and universities rent computers with all the hardware and software you need. Find out if your school does this, and see if it's a better deal for you

- ☑ Some schools supply freshmen with identical computer systems that are paid for through tuition. Make no assumptions that this is the case, however. Check into what your school offers before you do anything about technology.


"Look into everything before purchasing. Deals may not always be as good as they sound."
"Somebody has the answer to your technology question. Keep asking."
"Spend what you can comfortably afford. In the long run, the more you invest, the longer your system will remain viable."

Is my machine up to date enough? What are some recommended specs?

Once again, the first place you should look for the specifications on a new computer or deciding if the equipment you already have is sufficient is the literature sent from your college or its web site. Somewhere in the printed material or online, there should be a list of minimum recommended configurations for personal computing systems. If you're planning to buy new equipment, here are lists of specs to serve as a second opinion on both low-end and high-end Macintosh and Windows laptops and desktop computers.

Windows

Recommended	Minimum
Intel Pentium 4 Processor or AMD Athlon XP 1700	500 MHz Processor or higher
Windows XP Professional	Windows 98
At least 256 MB of RAM	128 MB of RAM
At least 40GB Hard Drive: 60GB is better	At least 500 MB free hard disk space
CD-ROM drive, CD-RW, or DVD-ROM	CD-ROM drive
Integrated 10/100 Ethernet Card	10/100 Ethernet Card

If your Windows computer does not come with an Integrated Ethernet card, we recommend a 3Com or Intel card.

Macintosh

Recommended	Minimum
G4 Processor	G3 Processor
Mac OS 9.x or Mac OS X	Mac OS 8.6
At least 256 MB of RAM	128 MB of RAM
At least 30 GB hard drive	At least 500 MB free hard disk space
With DVD/CD-R	CD-ROM drive
Built-In 10/100 Ethernet Card	Built-In 10/100 Ethernet Card

All Macintosh computers with a G3 processor or better have a built-in Ethernet card.

Don't forget to bring a surge protector for all those computer cords!

Universal Truth ✔

Get over it. No matter what technology you buy today, there's sure to be something faster, lighter, or "cooler" tomorrow.

More Details

Processor (CPU)—There's a lot of talk about lightning fast processor speeds these days, but as long as you buy a new and up-to-date computer from a known vendor or manufacturer, you'll get adequate speed. Buying one or two steps down from the "top-of-the-line" should still give you a very fast and adequate machine. If you're thinking about upgrading the processor in your old system, you should know that it's generally not cost-effective to do so. If you're worried about speed, you should consider buying a new machine.

Memory (RAM)—Memory is probably the most important factor to consider when buying a new machine or upgrading an older one. Memory and performance go hand in hand. The more memory you have, the faster your software will run, the more applications you can run at the same time, the easier it will be to switch between applications, and the better your machine will handle multimedia projects.

Don't shortchange the importance of memory. It's relatively inexpensive and will give you the most noticeable improvement in speed. Although 128 MB of RAM may take care of your immediate needs, a system with 256 MB (or even more), is strongly recommended.

It's even more crucial to have a generous amount of memory installed in laptop or notebook computers. When a system is low on memory, disk activity will increase, draining your batteries more rapidly.

No matter what system you buy, make sure to add more memory later, particularly if you're buying at the minimum level. It's best if your machine has free slots so that you can add new memory modules without having to discard any of the original ones.

Hard disk space—New systems commonly come with drives that hold 20 GB or more. Most systems will allow you to add more disk space later, either as a second internal drive or as an external unit.

Monitor—Don't buy a new desktop system with a monitor smaller than 15". Larger 17" and 19" screens are even better and are increasingly affordable. While you may save money buying a 15" display, getting a larger screen size is your best bet. Flat panel (LCD, plasma) monitors are becoming increasingly affordable as well.

Regardless of screen size, your system should be capable of display at a resolution of 1024 x 768 pixels (picture elements) with at least 16-bit color (32 thousand different colors). A new system should come with at least 8 MB of VRAM (video memory).

Compromising on the quality of a monitor is a bad way to save money. The only way to upgrade a monitor is to buy a new one.

CD-ROM or DVD drive—A CD drive is essential these days. Remember that DVD drives can also read standard CD-ROMs. Some systems also have writeable CD-RW drives. Being able to burn your own CDs is a real plus for turning in any kind of assignment, especially ones with multimedia components. They're also great for saving your work beyond your hard drive.

Networking—Before going to your new school you need to find out what you must have to connect to the college or university network. You'll probably need either a modem (for dial-up access) or an Ethernet 10/100 interface (for on-campus access or home network use). You shouldn't buy any computer system that isn't compatible with Ethernet-based networking. Also find out if wireless access is installed anywhere on campus, whether you'll have access to it, and what you need to have installed to use it. Wireless access is relatively new on most campuses, so don't count on it unless you've checked with the technology support center on campus. Don't stress about getting hooked up to the network. Everybody will be in the same boat on the first day when there is usually lots of technical help in the dorm.

Additional hardware—You might also consider:

Printer—Having your own color printer can be a great convenience (and they're pretty cheap–less than $99). Many schools, however, supply printers in places like the library, student center, or computer labs. You may also be able to send copy over the campus network to be printed at a central location where you can pick it up.

Zip Drive—A Zip drive or similar portable storage technology is particularly desirable if your system does not include a diskette drive (as is the case with current Macintosh systems).

Speakers and a Sound Board—Most new systems include speakers and a sound board. On budget systems, these may be integrated with the system board, which is less desirable. If you have a set of speakers, you can also let your computer system double as a sound system in your dorm room.

Stereo Headphones with a Small Jack Plug—These can be helpful in your dorm room or a computer lab if you like to listen to music while you work.

Web Cam—The price on web cams has fallen dramatically, and they can be a fun way to talk to and see friends and family over the Internet.

Scanner—Prices of scanners have fallen below $100, but unless you're going to work frequently with digital images, you probably won't need one. Even then, you'll probably be able to find one on campus that you can use instead. Space to fit a scanner in your room can also be a concern.

Pen or Pocket Drive—Manufacturers are beginning to make tiny storage devices—some barely larger than a pen—that simply plug into a port on your computer. These pocket-sized drives offer from 16 MB of memory up to 100 GB or more. They're a great way to store your work, move it from machine to machine, or take it home during breaks without having to drag your computer along as well. Of course, to use the drive, you'll need access to another computer.

Analyzing Your Current System

Do you already have a computer system to take to college? Has anyone offered you a system from their office? That's great, but make sure meets the minimum recommended configurations for personal computing systems listed in the literature from the college or on its web site. Be sure to check which operating systems are supported on campus. You don't want to get to school and discover that you can't connect to the network.

"Technical specifications are important, but in the long run it's even more imperative to buy a decent quality system that you know you'll be able to get serviced by the vendor or manufacturer if the need arises."

"I find myself copying a lot of stuff, and so I wish I had some kind of printer that copies as well."

Especially for the first year of college, it's likely that your technology needs will be just word processing and access to the Internet. Do you really need a new computer to do that, or could you wait a year?"

Should I buy a laptop or a desktop computer? What about a PDA or handheld?

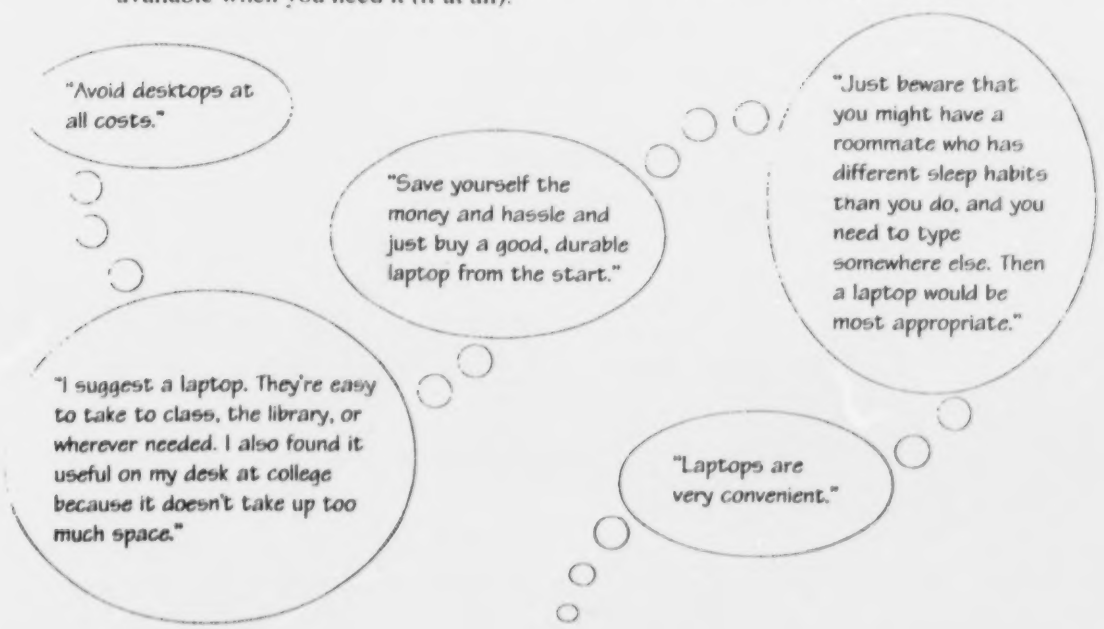
Laptops were the clear favorite of the college students we polled, but there were some strong dissenting voices as well. The choice is strictly up to you. Lots of factors can influence your decision—from how you study or put together a project to the size of your dorm room or the distance between home and school. One thing you WON'T see is lots of students busily taking notes with laptops in class. College students still prefer taking notes in pen and paper format; it's harder to lose them, they tell us. And professors? Many prefer that students take notes the old-fashioned way. There's less distraction in class, and the profs hate wondering what the students are really doing behind the lids of their laptops.

Go Laptop!

There are a number of reasons why you might choose a laptop:

- ✔ Saves space in your dorm room
- ✔ Allows instant mobility when your roommate is noisy, entertaining guests, needs to sleep, or when it's loud in the dorm
- ✔ Packs up in a flash when it's time for vacations and breaks
- ✔ Connects quickly into the campus network or the Internet at the library or other wired (or wireless) spots on campus
- ✔ Shares easily and efficiently when it comes to group projects
- ✔ Brings PowerPoint and other kinds of multimedia presentations DIRECTLY to class
- ✔ Reduces eyestrain because of the minimal flicker on flat screens

Bonus—Does the laptop have an S-VHS plug? If it does, you can plug it directly into a television (equipped with an S-VHS plug), rather than into a $10,000 video projector that might not be available when you need it (if at all).


"Avoid desktops at all costs."
"Save yourself the money and hassle and just buy a good, durable laptop from the start."
"Just beware that you might have a roommate who has different sleep habits than you do, and you need to type somewhere else. Then a laptop would be most appropriate."
"I suggest a laptop. They're easy to take to class, the library, or wherever needed. I also found it useful on my desk at college because it doesn't take up too much space."
"Laptops are very convenient."

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Go Desktop!

Some of the reasons for choosing a desktop are:

- ✔ More economical
- ✔ Less likely to be stolen
- ✔ More durable
- ✔ Less likely to have network problems
- ✔ Easier and cheaper to upgrade

When you get your new computer, get a box or big file folder where you can put all the books, warranties, backup software, etc. And don't lend anything out!

"Get a newer computer. Make it a desktop, so that it won't be stolen."
"Laptops are overrated. They never leave the room."
"Many students at my institution have laptops, but they never use them for in-class work. In commuter schools, there's no place to safely secure your laptop except in a car trunk, and thieves know that. Carrying a load of books, notes, and a laptop around all day in a backpack can make you feel like a soldier during 'Hell Week.'"
"Take either a laptop or desktop, whatever you're most comfortable using."
"Wait until you get there to see what everyone has."

Note: If you decide to get a laptop, think about getting a mouse to go with it.

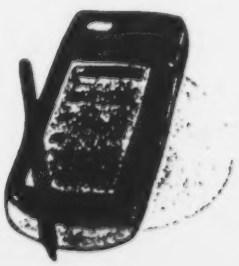
Handhelds and PDAs

As an adjunct to your computer system, you may want to consider a handheld device. Two things are happening with handhelds (also known as personal digital assistants, or PDAs). Their prices are falling (lesser known brands are as little as $30 at office supply stores), and their usability is rising. If you're looking to get organized for college, one of these popular devices from Palm, Handspring (Visor), or the many manufacturers who run Windows CE might be just the thing to start you off right. You can keep your calendar, assignments, address book, and lots more on one of these small devices. You can even download a novel to read or free games to play in off moments. Best of all, this information can sync with your computer so you can have a back-up right on your desktop. Better known brands of PDAs start at $99 and go up. The more memory and add-ons the device has, the higher the price.

A handheld or PDA can also be another alternative to a laptop if you decide to take a desktop computer to school. Using a fold-out keyboard (about $75) that attaches easily to your PDA, and a piece of software called **Documents to Go** (published by *Dataviz*), you can create and read Microsoft Word and Excel documents right on your handheld. To do this you need a handheld with at least 8 mgs of memory (standard on most mid-range models). You can't expect to write a whole research paper this way, but it's a very lightweight and portable way to take notes at the library or keep track of research data. As soon as you return to your dorm room, the touch of a button lets you upload or snyc the documents to your computer for back-up and safekeeping.

"If you purchase a laptop—any laptop—absolutely get a multiple year warranty. Why? There are no serviceable parts that the typical user can fix on an errant computer. If you need service, more RAM, or an extra battery, you almost always have to return your computer to the manufacturer. A service agreement or an extended warranty makes your 'bad' computer THEIR problem."

"Backup, backup, backup your work if you go the laptop route. One fatal drop to the pavement, or a sticky-fingered thief, and you're out a lot more than just a computer."



Universal Truth ✔

No matter which way you go—laptop or desktop—there will be times when you wish you had the other. Enjoy the advantages of whatever you choose.

Should I buy my technology from my college or university? Should I buy it before arriving on campus?

Many colleges recommend systems on their websites and offer discounts. If you buy a system from your college, you can have it delivered to you at home before school starts or wait until you arrive on campus. These offerings could be "Best Bets" or they might just come with lots of software you won't need and end up paying extra for. Always compare prices on identical equipment. One big advantage of buying from the college computer store is that your system should be preconfigured to use the campus network and have the campus recommended anti-virus software installed. Also check on service options—it could make getting help easier.

"UNC requires a laptop. If you buy it at the school, as most do, it comes with Microsoft Word, Excel, FrontPage, Access, and Publisher."

Before v. After

If you have no idea what you'll need, it's probably best to wait. However, the advice we heard overall was to buy before you arrive on campus. For this question, the quotes tell it all.

Buy Before

"If you wait, you may not have the equipment and software you need when classes begin."

"If you buy your computer from the college computer outlet, they'll configure and service it for you—but you might have to wait for it in the rush if you buy immediately upon arriving on campus.

"If you have your equipment before, you can get familiar with it and make sure it all works together. Then when you get on campus, you'll just need to worry about making sure it all connects to the campus network. You'll also need to check about software you need for classes. Getting used to your software and system is especially important if you're going to change platforms!"

"If you wait, you may find equipment overpriced and the waiting for hardware and software frustrating. You have more important things to do in your first days at school than wait in line at the technology center."

Buy After

"Almost every computer outlet has a 'sale' in August to get those users who wait. Waiting a little bit after school starts can get you some nice price breaks on units that the stores didn't sell."

"Going to college for the first time is stressful. You need your brains a lot more than the machines. If you gave it some time before you bought a unit, you'd probably buy a system without the stress of making a choice under duress. It'd also give you time to consider your needs as well as your discipline's requirements for technology."

Mac vs. PC

First and foremost, if you're considering going Macintosh, find out if your campus supports it. If it does, then feel free to go that way. You should know that if you do decide to go Mac, you could find yourself in the minority on campus. Interesting enough, though, a number of colleges we talked to said that many faculty members use Macs even though the majority of students use Windows-based PCs. This is particularly true of certain disciplines, so check it out. If you're more comfortable with a Mac and feel you'll be able to troubleshoot for yourself better on your Mac, then by all means go Macintosh. These days, software such as **Microsoft Word**, **Excel**, **PowerPoint**, and most *Adobe* products are all cross platform, as is the Internet, so you can move seamlessly between Mac and PCs. If you have to run software that only runs on Windows, you can always buy the software program called **Virtual PC** (published by *Connectix*). Just remember to:

- make sure you can connect with whatever you need to on campus
- check that you'll be able to get help with any troubleshooting issues.

Remember, you don't need anything special to be a Mac person in a PC world.

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Technology in Your Dorm Room

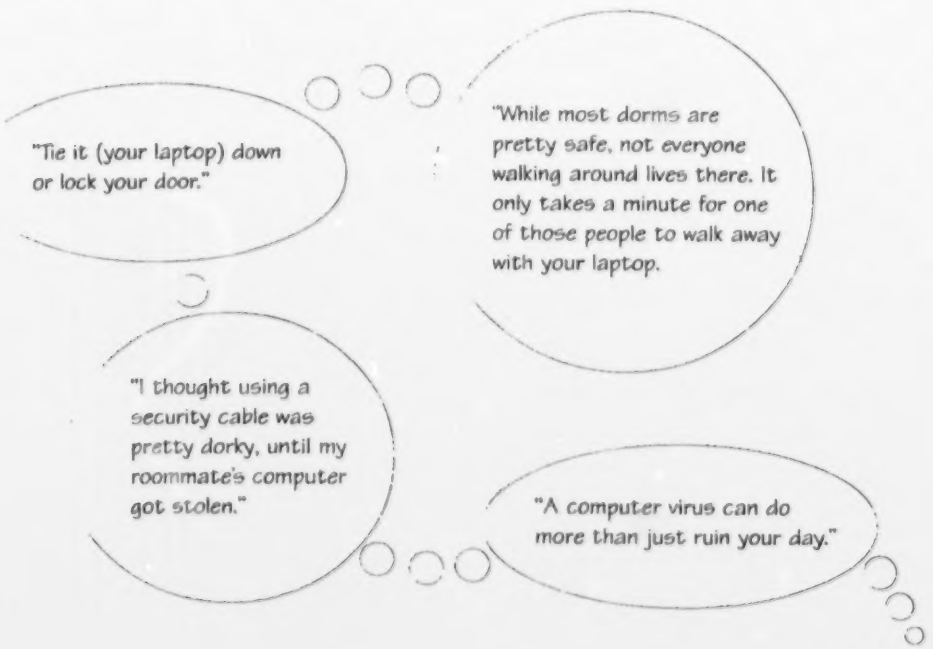
- Learn to coexist with technology. Keep water and other liquids away from your keyboard. Get a water bottle with a straw or a cup with a lid if you find yourself knocking things over in your dorm room.
- Having a party? Unplug your keyboard and put your technology away or you may find someone has "adapted" it for his or her own use. You may never find your files again!
- Get some speakers for your computer—they cost as little as $10 and up. This is a great way to let your computer double as a sound system in a dorm room. If you have the right drive, your computer can play CDs, MP3s, Internet radio stations, and even DVD movies.
- Do you like to listen to music while you work? Get a set of headphones. They've been known to save many roommate relationships.
- Most dorm rooms have been around much longer than computers, so you may need to be creative in setting up your workstation. Don't forget to bring a power strip. Label the cords on your computer so that if you need to use the workspace for another project or a party you can quickly get reconnected afterward. Make sure the keyboard is at a comfortable height, and consider getting a wristpad if you're using a laptop.
- Having a small lamp next to your computer can reduce glare on the monitor, especially late at night when you're burning the midnight oil.

What about security?

The bottom line: laptops require more vigilance on your part. In talking to students, faculty, and administrators, we heard the same story with the same sad ending over and over again—"I just left it for five minutes." Keep that in mind. Of course, it's also true that when it's time for vacation you can take your laptop with you. Make sure to keep the serial numbers of all your equipment in a place where you can easily find them in case you have to report a loss. (See the cover of this booklet for a convenient place to keep this kind of information.) If you go the laptop route, think about getting a security cable to tie the computer down when you have to leave your room open or to secure it in the library.

You also need to consider the threat to your computer and software from viruses. Many campuses provide virus protection software and require you to use it. In fact, they'll disconnect you from the college network if they find out you DON'T have it installed! If your college doesn't provide virus-protection software, consider purchasing a program like **Norton Antivirus** from *Symantec*. Be especially careful of emails and file downloads from unfamiliar people. Upgrade your anti-virus file online at least once a week, preferably once a day. Nothing can spoil your day faster than getting a virus! There's only one rule when it comes to email. Don't open it unless you have a BIG clue who it's from.

A word to the wise on passwords: Don't give yours out! Don't write it on a sticky note and attach it to your computer monitor. Once somebody knows your password, you've given them a key to using your identity. Can't remember your password? Put it on a piece of paper that you keep in your wallet, or tape the paper underneath a drawer or in some other hidden spot.


"Tie it (your laptop) down or lock your door."
"While most dorms are pretty safe, not everyone walking around lives there. It only takes a minute for one of those people to walk away with your laptop.
"I thought using a security cable was pretty dorky, until my roommate's computer got stolen."
"A computer virus can do more than just ruin your day."

19

What software will I need for college?

You're probably already familiar with the basic software you'll be using in college courses. The bottom line—unless your college suggests otherwise, you'll need word processor, spreadsheet, presentation, browser, anti-virus, and email software. We recommend:

- ☑ **Microsoft Office**—Includes **Word**, **Excel**, and **PowerPoint**
- ☑ A Web Browser—Either **Internet Explorer** or **Netscape**
- ☑ Anti-virus Software—*Symantec's* **Norton Antivirus** is a good choice.
- ☑ eMail Software—Such programs as **Outlook**, **Outlook Express**, **Eudora**, or **Netscape Messenger**.
- ☑ Plug-ins for your browser

Other Necessary Software

Check on the college website, at the campus technology store or center, and with professors in your department to find out what other software you may need. Business, engineering, science, art, music, mathematics, and other majors may, for instance, need software specific to their course work.

Don't Purchase Until You Know What You'll Need

- ☑ ***Verify whether the software is available at an academic price.*** Check to see if your college has educationally-priced software, student versions of software, or site licenses for students. If special pricing is available, it can save you hundreds of dollars.
- ☑ Check prices at software outlets; you may find some very good deals.

You Should Know That . . .

- ☑ Your college website may offer support for loading and using software. Many colleges provide online guidelines; some have teams of tech-savvy students who will come to your aid.
- ☑ Some of the software you'll use in college may only be available through campus labs. You won't be able to put it on your computer, but you won't have to pay for it either. However, you'll have to go to a campus lab to do your work.
- ☑ The software you need may be part of a college package that is included in your tuition or is otherwise available at a low cost. It won't be free, but it's usually a bargain.
- ☑ If you like to add creative touches to your presentations and projects, you may want to consider adding photo editing and/or paint software to your computer. **Photoshop Elements** (published by *Adobe*) is a good universal program to consider. (See the *Adobe* site at www.adobe.com for a free 30 day downloadable demo.)
- ☑ When in doubt concerning whom to contact about what you need, check with the college Admissions Office. While admissions officers may not know the answers to your questions, they'll be able to lead you to the best sources of information.
- ☑ Your web browser may not be as up-to-date as you think. Go to the **Netscape** site (www.netscape.com) or the **Internet Explorer** site (www.microsoft.com/windows/ie/) to find out if you need to download a more current browser. The newest browsers will usually have the latest plug-ins ready for you to use.

- ☑ You may already have the plug-ins you need. But how can you tell? Go to the **McMaster Test Page** (www.mcmaster.ca/cis/projects/spg2000/plugins.htm). Then click on each plug-in to see if the sample file works on your computer. If it does, you have the plug-in. If the test doesn't work properly, click on the link to install what you need. Remember to be sure to download the plug-in versions compatible with your operating system.
- ☑ Some programs take up a great deal of computer memory and hard drive space. Check with your campus technology store or center to make sure your computer can handle the software you need and the projects you expect to do.

"When it comes to computers and software, the deals colleges can offer students are often untouchable."

Universal Truth ✔

No one is ever completely up-to-date in the computer world.

Software Outlets*

Where you may find a good price—

Software Outlet
www.softwareoutlet.com

Shop Microsoft
http://shop.microsoft.com/

Warehouse
www.warehouse.com/

Chumbo
www.chumbo.com/

Computer and Software Outlet
www.compoutlet.com/mall/hewpac.htm

Shoplet
www.shoplet.com

*Ask at the campus tech center whether college students can get special software pricing from local or online stores.

The Top Five Plug-ins

Don't forget to plug them into your Mac and Windows systems!

1 **Shockwave Player & Flash Player**—*Macromedia, Inc.*
www.macromedia.com/shockwave
www.macromedia.com/software/flash/

These players allow you to play and view **Shockwave** and **Flash** interactive multimedia on the web. Download **Shockwave** first because **Flash** is automatically included with any download of the **Shockwave Player**.

2 **QuickTime**—*Apple Computer, Inc.*
www.apple.com/quicktime

QuickTime is Apple's technology for handling video and streaming video (see **Real Player**), sound, animation, graphics, text, music, and even 360-degree virtual reality (VR) scenes. **QuickTime**, like **Shockwave**, is used on many web sites to display videos and animations.

3 **Real Player**—*RealNetworks, Inc.*
www.real.com

RealPlayer plays certain types of video and audio files, as well as animations and multimedia presentations. **RealPlayer**'s streaming file format, like **QuickTime**, allows you to listen to sound files or see video files over the Net (such as live radio broadcasts or TV Webcasts) without having to wait for the whole file to download.

4 **Acrobat Reader**—*Adobe Systems, Inc.*
www.adobe.com

Acrobat Reader lets view, search, and print Portable Document Format (.pdf) files. Documents are often converted into the .pdf format to save disk space or to make printing easier. Many government documents are in .pdf format. So are course materials, syllabi, instructions, and bibliographies of sources.

5 **Windows Media Player**—*Microsoft Corporation*
www.microsoft.com/windows/windowsmedia/download/default.asp

At the media section of the *Microsoft* site, you can download a variety of media technologies for Windows and Macintosh systems. Check the site for updates so you'll be current with your video and audio needs.

Other Useful Add-ons

Zip Files

Zip files are 'archived' files that are 'zipped up' (compressed) to save space and make downloading software and transferring e-mail attachments faster. If you download files or software from the Internet, many times the files will be .zip files. You'll need to "unzip" them in order to install the software or read the content. The most popular programs for decompressing these files are: **WinZip** (www.winzip.com/) or **Stuff It** (www.aladdinsystems.com/) for Windows and **Stuff It Expander** (www.aladdinsystems.com/) for the Mac. You can find less expensive and even free versions, of comparable software at sites such as www.tucows.com. Check under "Compression Utilities."

Readers, Viewers, and Players

Sometimes you'll want to open content formatted in a program that's not on your computer. If all you need to do is to read or print the content, a reader, viewer or player is the solution. You won't be able to change the content, however. **Word**, **Excel**, and **PowerPoint** all have free viewers. To find MS viewers, go to Office Downloads (www.microsoft.com/office/downloads/default.asp), select the product, and then the viewer. There are also readers or players for other software programs such as **HyperStudio** (www.hyperstudio.com/downloads). Therefore, when you can't open a program, check the appropriate software site to see if a reader, viewer, or player is available.

Java

Java is a type of Web-programming that allows you to experience interactive multimedia through your browser. Most browsers, such as **Internet Explorer** and **Netscape,** are already Java-enabled, so nothing extra is needed. It's a good idea, however, to be aware of what Java is so that when you come across a site that says "Your browser must support Java to view this page" you'll be able to surf with confidence knowing that your browser has this program.

Even More Plug-in Resources

Plug-in Gallery and Demo Links
www2.gol.com/users/oyamada/

CNet Download
http://download.com.com/

Plug-in Refresher and a Plug-In Guide
www.plugins.com

What Should I Know about Email?

It's not surprising that 100% of the students we surveyed said they used email on a daily basis. You can expect that it will be your primary form of written communication with faculty, other students, family, and old friends. But with this instant form of communication come some cautions about email and how to keep time consuming spam (junk mail) out of your mail box.

Take into consideration these rules-of-clicking for coping with email and spam

Email—Rules of the Click

- ☑ Pick one or two times a day to routinely check your email and respond in an unhurried fashion. Only those who are having a romance via email or closing a big business deal should be seen hovering around the machine constantly trying to retrieve messages.

- ☑ Don't open mail from strangers—delete it immediately.

- ☑ Be clear and brief—everybody is overwhelmed these days with email and will appreciate it if you get to the point right away.

- ☑ Count to ten before you send! You can't get your angry words or mistake-filled message back once you've hit the send button.

- ☑ Be careful about replying. Make sure you want everyone on the "Reply All" list to read your words.

- ☑ If you're sending or forwarding copies of email to many recipients, it's better to "bcc" (blind copy) the message so that the recipients' e-mail addresses remain anonymous.

- ☑ There's nothing more frustrating about e-mail than attachments that don't open. Call or email ahead to see if your recipients think they'll be able to open your files If you have any doubts, especially for shorter messages, cut and paste the text into the main body of the message. Pictures sent in JPEG format are generally the easiest to open.

- ☑ Don't write in caps—it means that you're shouting!

- ☑ Lots of people use little icons and acronyms in their email. These can be fun, but don't over do it, and make sure the person on the other end knows what you mean. (You can always put an explanation in parentheses next to the symbol the first time around.) For an explanation of those symbols, check out a site like www.learnthenet.com/english/html/25smile.htm

- ☑ Never write a message you'll regret having sent.

Avoiding Spam

- ☑ Can you recite the alphabet backwards? Neither can a spam attack. Consider starting you email address with a letter from the end of the alphabet. If you do, you may get less spam. This is because your network or Internet Service Provider generally shuts down spam attacks before they get too far along in an alphabetical listing of emails.

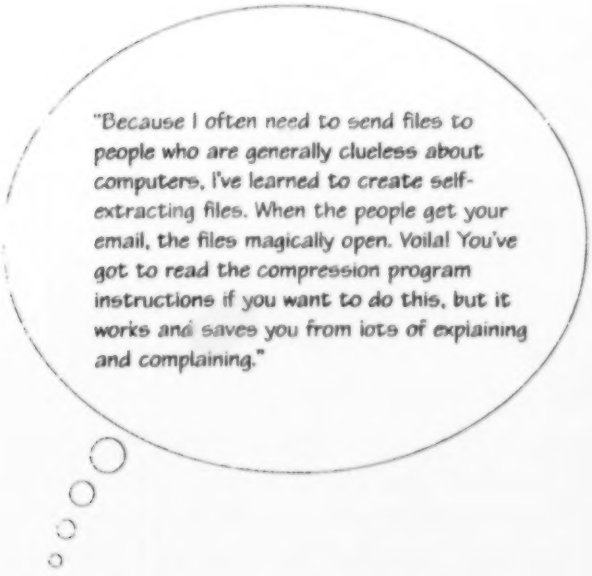
- ☑ Watch where you leave your calling card. Post your email address in public sparingly. If you like to chat, leave messages on bulletin boards, or need to highlight your address on your Web site, you might think about having one address for that purpose and another for "real" mail.

- ☑ Share carefully. Make sure you know what registering on a Web site really entails. With whom will they be sharing your email address? Read the fine print of their privacy policy.

- ☑ Buyer beware! No matter how enticing the offer—instant weight loss, freedom from bill collectors, free money—don't get caught. Even if the deal isn't a scam—which 98% of them are—remember that responding means more spam in your mailbox.

- ☑ Unsubscribing isn't the answer. Have you ever tried to unsubscribe or take your name off a mailing list? It's a nightmare of endless links to sites that are supposed to help you get your name removed, but may instead just add your name to more lists. Just think, now you've confirmed that someone actually reads the email at your address.

- ☑ Your email software probably gives you some options to filter out unwanted messages, but don't allow suspicious messages to drop straight into the trash without a quick look-see at the sender and subject. You may miss some messages you want.


"Because I often need to send files to people who are generally clueless about computers, I've learned to create self-extracting files. When the people get your email, the files magically open. Voila! You've got to read the compression program instructions if you want to do this, but it works and saves you from lots of explaining and complaining."

The "I CAN'T Open It!" Syndrome

Compression & Conversion 101: Necessities of College Life

These days, sending and receiving files by email is just part of an average day at college. That said, it's essential for both your academic and social life to understand how to send files your correspondent can read and open files sent to you. To those ends, here are a few rules of thumb and software suggestions:

- Send all photos and images in jpeg/jpg format. If your original files aren't in jpeg/jpg, you'll need to convert them.
- Compress large files. Some email programs do this automatically, but you'll need to check the options in your program.
- Never send files that are larger than 500k. Make sure that even when compressed they're no larger. Can you imagine your professor's reaction when it takes two hours to open your attachment?
- Use the trailer <.doc> at the end of text documents sent to PC users. (example, paper.doc). Mac users can open files that end in .doc, and they can also open files sent without the trailer. (examples, either paper.doc or paper).
- Check your email program to learn about options for sending attachments. In programs such as *Microsoft's* **Outlook**, when you attach a file you can click on "attachments" and then select options for sending and encoding.
- Use a compression program and an image converter to bring you up-to-date with your email. You'll also find that both have lots of uses beyond email.

Software

At sites such as *CNet's Download.com* (www.download.com), you'll find a variety of programs to download. Some favorites are:

Compression Software (for creating, downloading, and opening attached files):

WinZip (www.winzip.com) creates files that end in .zip for PC (example, Rover.zip). You can download a free evaluation copy. ($29)

StuffIt (www.stuffit.com) creates files that end in .sit for Mac or PC (example, Rover.sit). You can download a free evaluation copy. ($49-79)

Conversion Programs (for changing file format of graphics files)

PhotoShop Elements (www.adobe.com/digitalimag/main.html), for Mac or PC. You can download a free evaluation copy. ($99) This software sometimes comes bundled with scanners or other digital equipment. Rebate offers for ***PhotoShop Elements*** may come with other digital-type software.

GraphicConverter (www.lemkesoft.de/us_index.html), for Mac. You can download a free evaluation copy. ($30) This is a nifty little program that can read and convert over 150 different types of files. It can sometimes even open corrupted files.

ACDSee (www.acdsystems.com), for PC. You can download a free evaluation copy. ($50)

What should I know how to do on my computer BEFORE my courses begin?

Put a check mark before each that applies to you.

❑ I can find the manuals for my computer, printer, and software.

(Think about putting everything into a brightly colored folder or box that will be easy to find in times of stress. Make sure to add information you get about connecting to the college network. Sometimes this may be just a guide sheet. You'll need these manuals/guide sheets if no one is around to come to your rescue and you can't connect to the Internet or college network to get help.)

❑ I know how to connect the cables that go with my computer, printer, and other devices.

(If you don't, check your manuals. There's usually an easy-to-follow diagram showing all the correct connections. Now, do you have the manuals? Put tags on cords so you know which is which at a glance.)

❑ I understand how to do basic troubleshooting on my computer and printer.

(See the fold out on the inside back cover of this book for some basic troubleshooting tips.)

❑ If I need help with troubleshooting, I know where to get it.

(Check out "Where Can I Get Help" on pages 33-37)

❑ I have good keyboarding skills.

(If not, you're in big trouble. Purchase a keyboarding practice program now and get to work.)

❑ I know how to use the word processor I'll be using in my courses.

(If this is NOT the word processor you used in high school, put it to work before you get to college so that when you start classes you can concentrate on assignments without having to learn new software. Tutorials for **MS Word** are available on the *Microsoft* site, www.microsoft.com/insider/learning/lessons.asp, and at www.microsoft.com/education/?ID=Tutorials. For **AppleWorks** tutorials and tips, go to www.apple.com/appleworks/.)

❑ I know how to edit using my word processor.

(Editing includes checking spelling, grammar, quotes, and sources; changing, moving, adding to, and deleting text; rereading and revising; and doing a final check. North Carolina State's Word Processing Tutorial may be helpful. You can find it at: http://www.chass.ncsu.edu/English/computer_tutorial/G_WordPr.htm.)

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❑ I can read and create a spreadsheet and a database.

(For practice, take Microsoft's free lessons at www.microsoft.com/insider/learning/lessons.asp and at www.microsoft.com/education/?ID=Tutorials. **AppleWorks** tutorials and tips are available at: www.apple.com/appleworks/.

❑ I know how to create a **PowerPoint** presentation.

(An absolute must! Microsoft has tutorials for this also. See the MS links above.)

❑ I understand how to make connections through the Ethernet port on my computer.

(This may be just a matter of connecting an Ethernet cable from the Ethernet port on your computer to the Ethernet port on the wall. If you can't find your computer's Ethernet port, you'll need to check the diagram of your computer in your manual. However, if your computer hasn't been set up to connect to the campus network, you'll need to follow the directions given to you by your college for connecting to the network. If you need help completing the information for connecting—server names, configurations, and all that—call your campus tech support center. The people there will lead you through the process.)

❑ I know how to search the Internet efficiently.

(See Purdue University's *Searching the World Wide Web* at http://owl.english.purdue.edu/internet/search/index.htm. The University of California at Berkeley also provides guidelines at: www.lib.berkeley.edu/TeachingLib/Guides/Internet/FindInfo.html.

❑ I understand how to download text and graphics from the web.

(For help, visit the University of Southern Mississippi's *Teaching and Learning on the Internet* at: http://dragon.ep.usm.edu/~int/capstone/tonette/download.html.)

❑ I know how to cite web-based sources.

(Get a copy of the APA, MLA, or other style guide used by your college or department and follow the examples in the guide. The University of Wisconsin–Madison Memorial Library provides links to a wide variety of Internet citation guideline sites at: www.library.wisc.edu/libraries/Memorial/citing.htm.)

❑ I know how to send email with attachments, and I understand how to reduce the size of large files for mailing.

(You may love the presentation you just made on the computer, but your professors won't if they can't access and read it. Check *Everything E-Mail* at: http://everythingemail.net/email_help_tips.html.) See page 27 for more help.

❑ I'm familiar with the use of storage devices such as zip and jaz drives, read-write CD-ROMs, and additional hard drives.

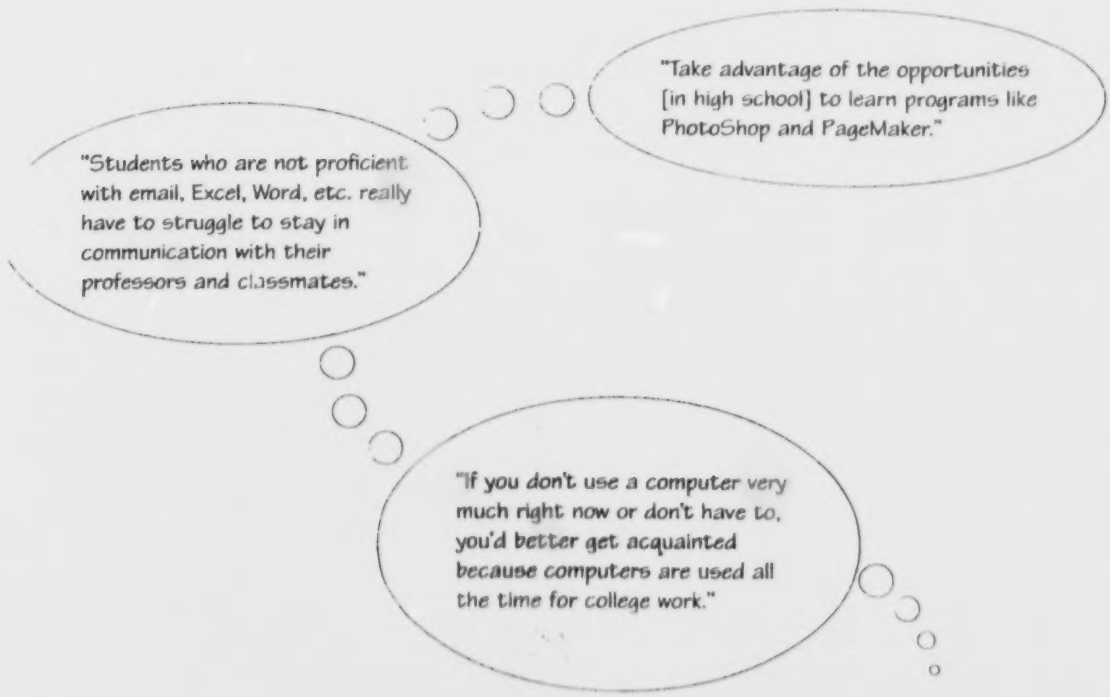
(Save assignments and projects on both your computer and in additional storage areas. If the computer crashes when your research paper is almost finished, the good news is that you'll have another copy of your paper. That is. . . if you saved it on another storage device!

❑ I'm familiar with programs needed for my college department.

If you'll be using **PhotoShop**, **PageMaker**, **Mathematica**, or another program that takes time to learn, be sure to get the learning curve under control before you head to campus.

❑ I have created a personal web site.

This is not an absolute, but students we surveyed told us that sometimes they were required to put projects up on a personal web site. If you time before heading to college, it would be a good idea to experiment with creating a simple web page. Programs such as **DreamWeaver** (from *Macromedia*) and **Front Page** (from *Microsoft*) will help you design excellent web pages. Word processing programs such as **Word** (*Microsoft*) and **AppleWorks** (*Apple*) allow you to save in HTML or web format. You can then check out what your pages look like in your browser—**Netscape** or **Explorer**.


"Take advantage of the opportunities [in high school] to learn programs like PhotoShop and PageMaker."
"Students who are not proficient with email, Excel, Word, etc. really have to struggle to stay in communication with their professors and classmates."
"If you don't use a computer very much right now or don't have to, you'd better get acquainted because computers are used all the time for college work."

Universal Truths ✔

You haven't finished editing when you've run your spelling checker.

Grammar checkers aren't always grammatically correct.

When searching the Internet, the fewer hits the better—unless it's zero.

Good online researchers use their computers, not paper.

Where can I find help when I'm having trouble with my computer?

Don't panic. There's help available on campus, online, and on the telephone. You may even be able to fix the problem yourself. Let's take a look at a few help sources:

Yourself

If you can't get on the campus network, get email, or go on the Internet . . . check with others in your dorm to see if they're having the same problems or contact the campus tech center to determine if the problem is beyond your computer. Don't start fooling around with the settings on you computer or call for help until you make sure that the trouble is on your end.

If your computer doesn't start up or function as it should . . . first try restarting. No luck? Check all of the computer's connections. Gently but firmly push them in or take them out and reinsert carefully. Then try your computer again. If you have multiple peripherals (scanner, disk drive, additional hard drive, digital camera, etc.) connected directly to your computer or through small hubs, start your computer without the peripherals. If all goes well, add one peripheral at a time (restarting on each try) to see if one of these add-ons is the culprit. Sometimes the problem may be "where"a peripheral is connected to your computer. Try a different port before you give up.

If your computer starts up so that you can see the desktop . . . check for a help area on the computer. Most computer companies provide their own "manual" on their computers. You may also have a utilities program installed on your computer by the manufacturer or a software program such as **Norton System Works** that you could put to use.

If, when you purchased your computer, you received a CD to use when problems arise . . . now's the time to try it. Follow the directions for use of the CD; the programs on it may solve your problem or at least give you information that will help others solve it. **A WARNING**: Make sure to read the instructions very carefully because some repairs may delete or corrupt your personal files. When in doubt, it's best to stop using the CD and seek help!

Have you filled in the information about specs on the back cover fold-out of this book? If not, do it now! The time will come when you'll need it.

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Web Sites and Hot Lines

Campus Computer Centers. Campus computer centers often offer help through websites, email, and hotlines. Post help-source phone numbers and email and web addresses near your computer so that you'll have them when you need them.

Major Computer & Software Manufacturers. Companies such as *Dell*, *Apple*, *Compaq*, *IBM*, and *Microsoft* feature areas on their websites devoted to helping you figure out problems on your own. You may find your answers in a list of FAQs or Frequently Asked Questions. For example, *Microsoft Support Knowledge Base* (http://support.microsoft.com/) includes a gigantic collection of how-to articles, and *Apple Tech Exchange* (http://support.info.apple.com/te/troubleshooting) is great for troubleshooting common Mac problems.

Manufacturers of computers and software often have telephone support hotlines. Some of these may be free, especially during a certain period after your purchase. However, if the period of warranty is over, you may have to pay a fee for use of telephone support hotlines. In any event, don't expect to be put right through to get answers; there's often a significant wait while company representatives solve problems of other customers. Never call a support hotline without having your system specs and information on error messages/problem descriptions ready. Furthermore, if your computer is under warranty, you may need serial numbers or other codes that allow you to receive help free of charge. The hotline numbers were probably among the information you received when you purchased your computer. Remember to keep them where you can locate them when needed. You'll also find them on the manufacturer's site—if you can get online.

Other Useful Sites. Sites such as those listed below often give you the latest on common problems shared by fellow hardware or software users. Remember to bookmark or write down the places where you find the information that's most useful to you.

CNet—www.help.com

Computer Hope—www.computerhope.com

Everything Computers—www.everythingcomputers.com

Bohemian Technology—www.bohtech.com/main.html

Tweaktown—http://tweaktown.com

Computer Tips—www.ctips.com

MacTech Magazine—www.mactech.com

Listservs and Chat Groups

If you aren't in a hurry and can get online, try looking for some of the chat groups or discussion groups called Listservs (automatic mailing list servers). These include people who are either discussing technology topics 'live' (chat groups) or "not live" (referred to as asynchronous). You can post a question about your problem and either get an immediate response or check back in a day or two and possibly get several responses. These sources can be extremely helpful, and some of the people are willing to spend considerable time helping you.

ZDNet Community—www.zdnet.com/community

CNet Message Boards—http://forums.cnet.com

TweakTown Forums—http://forums.tweaktown.com/

Google Groups—http://groups.google.com/

"Whatever you do, don't let the computer geek down the hall mess with your computer. I've spent countless hours helping students get out of those kinds of messes."

Reference Books

While reference books can be wonderful sources of information, if they aren't up-to-date, they won't do you much good. Any reference book you purchase should make it easy for you to find your particular computer or computer component, along with ways to solve problems that may affect your system.

Here's a list of books we've found useful. All were available when we checked at Amazon (www.amazon.com). However, because you'll want the latest edition of a book that fits your computer, always be on the lookout for new editions and other books that meet your needs.

The Little Mac Book (7th Edition)
by Robin Williams
Peachpit Press, © 2001
ISBN: 0201745801, $13.99

The Little Mac OS X Book
By Robin Williams
Peachpit Press, © 2001
ISBN 0201748665, $20.99

Pocket PC
by Thomas J. Glover and Millie M. Young
Sequoia Pub, © 2001
ISBN: 1885071302, $10.47

Troubleshooting Your PC (2nd Edition)
by M. David Stone, Alfred Poor
Microsoft Press, © 2002
ISBN: 0735614903, $13.99

Windows XP Home Simply Visual
by Faithe Wempen
Syben, © 2001
ISBN: 078212982X, $17.49

Windows XP in a Netshell
by David Karp, Tim O'Reilly, Troy Mott
O'Reilly & Associates, © 2002
ISBN: 0596002491, $20.97

Some of the best technical publications come from a company called O'Reilly & Associates (www.oreilly.com/). O'Reilly's books are for beginners as well as techies. And don't forget to check the magazine rack in your college library or bookstore for up-to-date information on your computer and software. You may just come across the perfect article that will help you solve your problems.

Make Your Own Manual

Keep having the same problems? Buy yourself a little notebook to keep by your computer, or use sticky notes, and write down the solution. It's embarrassing to call tech support repeatedly, only to be told the same simple solution.

Friends, Parents, and Others

Sometimes, people you know can help solve your computer problems. However, you need to be especially careful when letting others change things in your computer. If you're sure that a person knows what he or she is doing, then ask for help. Be forewarned, however—so-called computer gurus living just down the hall in a dorm have been known to completely mess up their friend's computers. Be very specific about what you need help with, and don't let anyone make random changes to your computer.

Campus Computer Center, Computer Store, or Manufacturer

Sometimes, no matter what you try, your computer just won't work. It's time to call for service. Often you'll be asked to take the computer to the store or computer center so that a technician can work on it. Don't expect to get it right back. Sometimes a manufacturer will arrange for you to ship the computer to a service center where it can be repaired. While it's never pleasant to be without your computer, most college campuses have computer labs where you can do work while your computer is being fixed. You might also be able to get a "loaner" computer from the college or your academic department. Let's just hope you've backed up your work so that you can access it on another computer!

Keep Your Computer Specifications Handy

Make a list of your computer's specifications BEFORE you need them when asking for help. Note the name of the computer, exact operating system (Mac OS X, Windows 2000, etc.), amount of RAM, hard disk storage, video specifications, etc. One way to do this is to find your original bill of sale for the computer. You will usually NOT find spec information in the computer manual that came with your computer. Here's how to find the specifications on your computer:

MACINTOSH For the Macintosh, all you need to know is the model name and number, the size of the monitor, and the amount of RAM. Go to the top left icon, scroll down to *About this Computer*, click and hold, and you'll see the number listed. To get information about the peripherals attached to your computer (Mac OS 8 and 9), go to the top left icon, scroll down to *Apple System Profiler*, click and hold, and find information about any device and where it's connected. To see the Apple System Profiler on OS X, follow this path: Macintosh HD > Applications > Utilities > Apple System Profiler.

WINDOWS With a Windows system, right–click on *My Computer* and go down to Properties. This window will tell you the version of the operating system and the amount of RAM installed. Click on *Device Manager* and you'll see a list of all the parts—by category heading—that are installed on your computer. Clicking on the '+' sign will cause each heading to expand, showing what devices are installed under that heading. You can then right-click on a device to view its properties. The information contained there includes the driver (under the driver tab), the IRQ for that device, and the DMA (under the resources tab). These are just a few of the important details about a computer. This list is valuable because it shows what Windows recognizes as installed.

WINDOWS XP For Windows XP, go to the system tool called *System Information*. It can found by clicking Start > All Programs > Accessories > System Tools > System Information. This has detailed information, from hardware through software and components.

Windows Updates

Microsoft Windows users should visit Windows Update (http://windowsupdate.microsoft.com/) on a regular basis to make sure their operating system is up-to-date. Such visits may help avoid problems later.

Write down error messages

You aren't going to be arrested for an "Illegal Instruction." When you get a dreaded error message, write down the message exactly as it appears on the screen. It may be gibberish to you, but to a technical support person it may point exactly to the problem and a quick solution.

Macintosh OS X Update

OS X will automatically update your system every time you connect to the Net. Although this can be a little disconcerting at first, once you get used to it, you'll be glad that *Apple* has provided such an easy way to take advantage of what's new.

Making a Phone Call to Technical Support

Helpful Hints

- ☑ Don't lose your cool—The people on the other end of the phone are aware that you're probably at the end of your rope, so be calm and let them help you solve the problem.
- ☑ Have all technical information ready before you call—Tech people have no idea what's sitting on your desk until you tell them. So be prepared. (See the section, *Keep Your Computer Specifications Handy*.)
- ☑ Relax and let the tech people control the conversation—Let them ask the questions in the way that they wish to pose them; but don't be afraid to say that you don't understand or to ask them to clarify their questions. Your responses allow the tech person to adjust the level of support to your specific needs.
- ☑ Walk through the setup/problem—Have the software program and documentation ready before you call. Have the computer on and at the place in the program just before you begin to experience the glitches. The tech person may ask you to describe what you see on the screen, and it speeds things along if you're already at that point.
- ☑ Write down the name and phone number of the person with whom you're speaking so you can call them back if necessary.
- ☑ Thank the person who helped you—Getting the person's name and sending an e-mail of appreciation could really make someone's day.

Universal Truths ✔

Think 'garbage in, garbage out, virus in, computer out' when you're downloading all those MP3 and other files you don't really need.

Be careful not to ask too many favors of computer professionals. First, because they love technology, they may take all day explaining what you'll never understand and really don't want to know anyway. Second, think of how much they'd charge per minute for their services if you weren't their friend or relative.

When following instructions for computer-related problems and the text says, 'Press any key,' keep in mind that there is no 'any key' on your computer.

Is there Spyware on Your Computer?

Sometimes when you download freeware supported by advertising, a spyware program may be placed on your computer. Spyware tracks what you do on the computer and sends the information to the company that sponsored the freeware. Several different types of spyware can cause significant problems with slowing down computer systems. If you like to download commercial freeware, consider adding free anti-spyware software like **AD-Aware** (from *Lavasoft*) (www.lsfileserv.com) to your computer.

What should I do if my computer or printer is not working and an assignment is due?

This is a real bummer, and it usually happens just when you don't need another problem. It's happened to all of us, so expect it. Our best advice can be summed up in two words: BACK UP. Always back-up your files onto another disk or storage device. Other crucial advice is: SAVE and then SAVE again. Saving regularly is a hard habit to get into, but there aren't many options if you don't save. Here are some ideas for where, when, and how to save and deal with catastrophes:

- **Save frequently on your hard drive**: Before typing a single word of your assignment, name the document and save it. Don't wait until you've finished working to save. Some software, such as **Microsoft Word** has timed backups that automatically save at intervals you designate in the options area. Check what's specified and make it more frequent if you can't get yourself to "save" frequently. Saving will help greatly if your system crashes and you have to restart. At the very least, you'll be able to retrieve the last saved version of your work. Saving onto your hard drive, however, won't help if your computer isn't working.
- **Save beyond your hard drive**: You should also save your work on some sort of back up—floppy disks, CDs, additional hard drives, zip or jaz disks, pen drives, etc. You might also have access to areas on the college network where work and assignments can be saved. If your computer is down, you can use your back-up to get to the content you want.
- **Keep supplies in stock**: Always have additional printer cartridges (especially black ones), paper, and (if appropriate) blanks disks or CDs on hand. Make a pact with your roommate or someone else who uses the same ink cartridges to be ready to share supplies when either of you needs a back-up cartridge.
- **E-mail your assignment**: Ask professors if it's okay to email assignments to them BEFORE they're due. This can help avert disaster if you have last-minute printer problems. It will also save you trips across campus to hand in assignments and allow you a bit more time for final polishing. When e-mailing assignments, always request verification that they were received.
- **Check with your professors**: Check with professors ahead of time about what to do in case of an emergency. They've no doubt had computer disasters of their own and will understand your concerns. They may offer suggestions to keep problems from happening. Find out what steps you need to take if a computer foul-up happens.
- **Be responsible**: This is when taking your responsibilities as a student seriously should pay off. Being conscientious, striving to do your best, handing in assignments on time, taking part in class discussion, and so on—these all demonstrate your sincerity as a student. If you show responsibility, then when a disaster does occur, professors are much more likely to understand.

"If you can't remember to SAVE regularly while working on your assignment, buy a timer and use it."

"Be prepared to suffer some consequences if you upgrade a piece of software or add something to your system. Make sure your assignments are completed before you add new hardware or software or experiment with a download from the web. Never change any setting or load any software during midterms or finals. And—remember those virus demons. They'll most likely come from a borrowed diskette or an email attachment from a 'friend.'"

BEST COPY AVAILABLE

What if a catastrophe happens and you're not prepared?

- ☑ If you're on a campus network and your printer isn't working or has run out of ink, select a nearby printer on the network and print to it. If you aren't able to use a printer on the network, email your work to a friend on campus who can print it for you. As a last resort, you could email the work to your parents (if they have a computer, printer, and fax machine), have them print it, and fax it to you at the college.
- ☑ If your computer isn't working and you've saved your work on the campus network, on floppies, or on other storage media, go to a campus computer lab and work on your assignment there.
- ☑ Is there a coffee shop or Internet Café in the area with email access for customers? What about a copy shop. If so, you might be able to work there or email your paper there and print it out.

Worse Case Scenario—Your computer isn't working, and you didn't take time to back-up your work. Think about these possibilities:

- ☑ Perhaps you've printed a rough copy of the assignment and can scan it into another computer? Check your desk or the trash for the rough copy, find a campus lab that has a scanner for text, scan your rough copy into the computer connected to the scanner, update your copy, and print to a campus lab or other printer. You could, of course, make use of a friend's scanner, and send the scanned copy to the nearest campus lab to continue your work. Using this method, it may take lots of work to get the assignment back to the way you want it, but you may be able to get it ready to hand in. Keep in mind that scanned copy doesn't always turn out perfectly.
- ☑ If you have a rough copy and no access to a scanner, typing it over on another computer is about the only option.
- ☑ If you don't have a rough copy and there is no way to retrieve the lost file, e-mail your professor (if the professor has given out an e-mail address) and explain the situation. The professor will explain your options. The next day, as soon as the computer center or computer store opens, take your computer there to see if the files can be retrieved from the hard drive.
- ☑ Whether or not you e-mailed your professor, go see him or her during office hours or stay after class to discuss the problem.

Universal Truths ✔

If you don't backup your work, you're sure to have a disaster at some point. It will no doubt be the night before an important assignment is due.

If you wait until the last minute to do your assignment, your computer system may become as frustrated as you are.

When you yawn, stretch, get up for a drink or use the bathroom, answer the phone, hear a loud noise outside your room, or greet your roommate when he or she comes in—these are all moments when you should SAVE your work on the computer.

"The course syllabus will spell out the penalties for late submissions. If the syllabus is not clear, then the professor has a problem. Online courses are great for clarity. The syllabus is posted. The policies for the course are posted. The exact time and date for all work is marked on each message."

The Authors . . . .

With iPod, PDA, folding keyboard, mini-cam, and pen-sized hard drives tucked discretely in their Baggallinis, totally wired Diane Kendall (Editor of Children's Software Press, Mom to a college freshman, and business partner to techno-talented layout wizard and fact-filled reference book editor Charles Roebuck), paired with sidekick Dr. Merle Marsh, ed-tech author and legendary administrator from Worcester Prep, regularly muddle into the milieu of essential minutiae as they translate tech-topics into readily digestible bites/bytes.

This time they've taken on the topic of "taking technology to college." Previously, they gave book reports a digital do, scripted digital cameras into homes and schools, and even slayed misinformation on the Web. Who knows what they'll take on next! To find out, visit www.childsoftpress.com or peruse their regular columns on Cablevision's web site at www.powertolearn.com.

Troubleshooting 101

Check the Power & Cables—Seems so obvious, but it's easy to forget. Plug a lamp with a working light bulb into the wall socket to test the power. Press all cables firmly in place and double check that there are no loose or unconnected cables. If you find an unconnected cable, check your manual to see how it should be connected.

Turn off the Computer and Restart—Want to save a lot of time? When your computer is behaving strangely, shut it down and restart. This is especially important if you get an error message, because continuing to work may compound whatever problem has developed. Shut down completely, count slowly to ten, and then turn the computer on again. To do this, you may have to unplug it from the power source if the operating system has "frozen."

Keep Your Mitts (and Disks) Clean—Greasy fingerprints, smudges, or scratches can damage CDs and DVDs. Clean a CD or DVD by washing it in warm water and mild detergent, and then drying the surface gently with a clean cloth towel. Returning disks to their cases may save you headaches later.

Printer Problems—Check for troubleshooting tips in the printer manual first, especially for a paper jam and to determine if the paper is loaded properly. Make sure ink cartridges aren't empty, the tape covering ink outlets has been removed, and cartridges are seated correctly. Also be sure to check that all cables are connected firmly. Print a test page (as described in the manual), and finally, try restarting.

Network Problems—If you're having a problem with the college network, check to see if anyone else is having the same problem. Be prepared for the network to go down, especially late on a Saturday night when system administrators think no one is working. Keep the phone number for the tech center handy if the problem persists.

Software—Is It Working?—If you're having problems with a program, try running a similar type program if you have one. Shut down all other running programs and see if the problem still occurs; it may be that one program is causing a conflict with another one. Solving some problems may require getting a software upgrade or a "bug fix" from the vendor's website.

Check For a Virus—Computer viruses can get onto your system from infected email, email attachments, word processing files, or other infected files downloaded onto your system. The best and simplest way to check for and avoid catching a virus is to use whatever anti-virus software is mandated or recommended by your college and keep your anti-virus program updated–once a day is best.

Retrace Your Steps—If you install new software or a new device and start having problems, try uninstalling the software and then reinstalling it. You might also try disconnecting or removing the device to see if the computer returns to normal. If it does, then you know the culprit and can check the troubleshooting guide or call the appropriate vendor for technical support.

Reading, Writing, and Problem-Solving—The Troubleshooting sections in printed manuals can be very helpful. It's also important to look at the "readme.txt" files that appear when you first install new programs onto your computer. These files contain late-breaking news and possible solutions to problems. Most manufacturers supply "onscreen" and "online" help that can be accessed electronically and internally by the computer. The onscreen help is usually accessible via an icon or button located in the top menu bar of the program. For online help, you'll need to go to the vendor's website, providing you can access the Internet.

For more help see pages 33-37 of this book.

Necessary Names & Numbers

Fill this in, remove the page, and tape it to your computer or desk! Yeah, it's a pain, but you'll be SO glad when something goes wrong. (Make a copy and leave it at home, just in case)

Computer Specs (Don't know? Look at your sales receipt, or see page 36)

Brand Name and Model_____ Operating System_____

Speed_____ Amount of RAM_____ Hard Disk Storage Size_____

Video Memory _____

Printer Specs

Name and Model_____ Printer cartridges/toner name/#_____

Specs for Other Devices (Keyboard, external drives, etc)

_____ _____

_____ _____

Serial Numbers

Computer _____ Monitor_____ Printer_____

Other Devices (keyboard, external drives, etc)_____

_____

Software_____Serial #_____ Software_____Serial #_____

Software_____Serial #_____ Software_____Serial #_____

Telephone Help Numbers/Web addresses

Campus Tech Center: phone_____ web_____ email_____

Campus Computer Store: phone_____ web_____ email_____

Computer Company: phone_____ web_____ email_____

Printer Company: phone_____ web_____ email_____

Insurance Company: phone_____ web_____ email_____

Places to order computer supplies (e.g. Office supply store, mail-order catalog)

_____ phone_____ web_____

_____ phone_____ web_____

Other Important URLs

_____

_____

YOUR TECHNOLOGY PACKING LIST

- ✔ Computer/monitor/keyboard/mouse
- ✔ Headphones (optional, but HIGHLY recommended)
- ✔ Printer
- ✔ Ethernet card (to hook up to school network)
- ✔ Backup drive (Zip, CD-RW, External hard drive, Pen Drive, etc.)
- ✔ Surge protector
- ✔ Cables (labeled) for all devices
- ✔ Manuals (in a folder or container so they are all together and easy to find)
- ✔ Original Operating System Disk (keep with the manuals)
- ✔ Virus Protection Software (check with your college)
- ✔ Software CDs (even if already loaded on computer)
- ✔ Technology specific to your academic department (e.g. CAD software, spreadsheet software, PhotoShop, digital camera, scanner)
- ✔ Zip disks, CD-RWs, floppy disks, or other back-up media
- ✔ Printer paper
- ✔ Extra ink cartridges/toner for printer
- ✔ Security cable for laptop
- ✔ Serial numbers and warranty information for all devices
- ✔ Serial numbers for all software
- ✔ Tech support phone numbers/URLs
- ✔ Small notebook (to tuck away in a VERY SAFE PLACE) for :
  - passwords for online accounts
  - back-up list of email addresses for family, friends, and other contacts.
  - troubleshooting reminders
  - miscellaneous information
- ✔ Soft cloth for cleaning monitor and CDs
- ✔ Mouse pad/wrist pad (if needed/wanted)
- ✔ Flashlight (optional, but great for checking/changing cables on the back of your computer)
- ✔ Scanner (optional)
- ✔ Speakers (optional)
- ✔ Small desk lamp (to reduce monitor glare, optional)
- ✔ CD burner/MP3 player/other devices (optional)

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